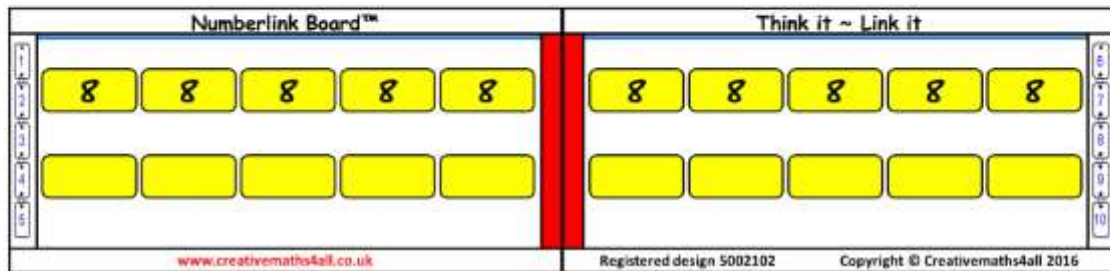


How to use a numberlink board...

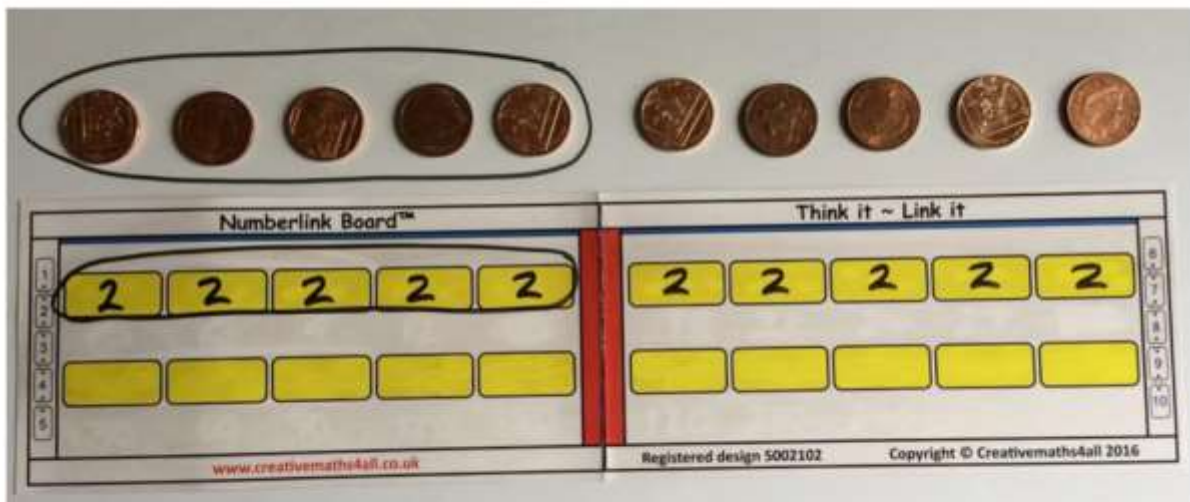
Step 1

Write in the multiplicands

Write the multiplicands in the top row of yellow boxes. This reminds the children of this structure of multiplication as repeated addition.



Show me five lots of 2



Make sure children are really clear about how the multiplier is shown on the board ie. by the number of repeated multiplicands. Highlight the red line as an easy way to find 5 lots of. Practise this before putting any products on.

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13

Step 2

Write in the key facts

Fill in the products in the order **x1**, then **x10** then **x 5**. The **products** should be written in the **white space** below the multiplicands. Children will then have key facts to support the connection of other multiples. This is a key feature of the Numberlink Board™.

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8				40					80
www.creativemaths4all.co.uk					Registered design 5002102 Copyright © Creativemaths4all 2016				

1x, 10x, 5x, derive

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8				40					80
www.creativemaths4all.co.uk					Registered design 5002102 Copyright © Creativemaths4all 2016				

Use the key facts to derive other facts

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8				40					80
www.creativemaths4all.co.uk					Registered design 5002102 Copyright © Creativemaths4all 2016				

If 8×5 is 40 what is 8×6 ?

If 8×10 is 80 what is 8×9 ? Use what you know.

Use the distributive law to derive facts

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8	16	24	32	40	48	56	64	72	80
www.creativemaths4all.co.uk					Registered design 5002102 Copyright © Creativemaths4all 2016				

$$8 \times 8 = 8 \times 5 + 8 \times 3$$

or

$$8 \times 8 = 8 \times 10 - 8 \times 2$$

$8 \times 7 = 56$ convince me

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8	16			40		56			
www.creativemaths4all.co.uk					Registered design 5002102 Copyright © Creativemaths4all 2016				

$$8 \times 7 = 8 \times 5 + 8 \times 2$$

Step 3

Write in the rest of the products

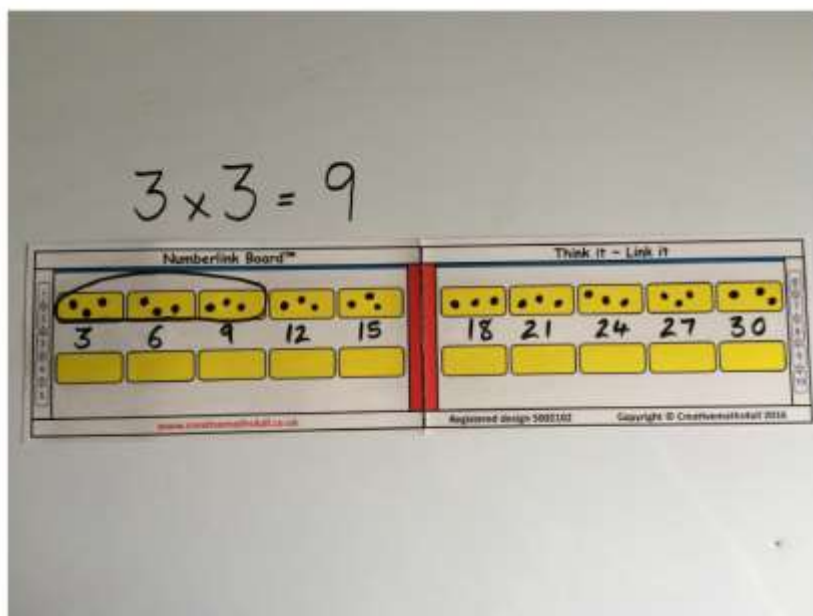
Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
8	16	24	32	40	48	56	64	72	80
8	8								
88	96								

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Practise to improve fluency

- Having completed the board, children rub off the facts they are confident with, leaving the facts they need to practise on the board.
- Practise the times table and then rub off another fact.
- When all products are removed, the multiplicand can stay on to give a picture of structure and strengthen the visual image of multiplication.
- Children can challenge themselves to complete the board as quickly as possible.

Numberlink Board™					Think it ~ Link it				
8	8	8	8	8	8	8	8	8	8
		24	32			56	64		



If children need support working out multiples initially, they can draw dots to show the **cardinality** of the number and count the dots.

Games you can play...

Turntable - a game for two or more players

This game is really good for becoming more fluent with a multiplication table that you have already begun to learn.

You will need:

A Numberlink Board™ and pen

A ten sided dice

1. Each player chooses the times table they would like to practise. The players can choose different times table to practise if they want.
2. Each player writes their multiplicands on, but none of their products.
3. The first player rolls the dice. The dice shows the multiplier, eg. if you roll a 6 find 6 times the multiplicand. The first player writes that product in the correct place on their board. (For the purpose of this game, use 0 as 10.)
4. The second player has a turn and writes their product on the board.
5. Take it in turns to roll the dice. If a number is rolled twice, the product is rubbed off the board. If a number is rolled again, the product can be written back on.
6. The winner can be:
 - the first person to write all the products on the board, or
 - the person who has the most products on when the time set for the game is up.

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Wipe Out! A game for two or more players

You will need:

A Numberlink Board™ and pen

A pack of playing cards

Choose whether to play:

- to a time limit - eg. 3 minutes
- with 30 cards
- with the whole pack

1. Each player decides on a multiplication table they are going to work on and writes the multiplicands in the yellow boxes (like for Turntable game).
2. Each player takes it in turns to turn over a card, which acts as the multiplier, and then writes the product on their board.
3. If a player turns over a picture card they can rub a product off their opponent's board!
4. If their opponent's board is already empty they have to write a product in!
5. Play until all the cards are finished or the time is up. The winner is the player with the most products on their board.

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21